

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P892759

Luminaire Tested: 2MB-4HL-LVRF-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P892759
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-1)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 2MB-4HL-LVRF-UNV-L840
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 4000K C
Light Source: -
Ballast/Driver: -

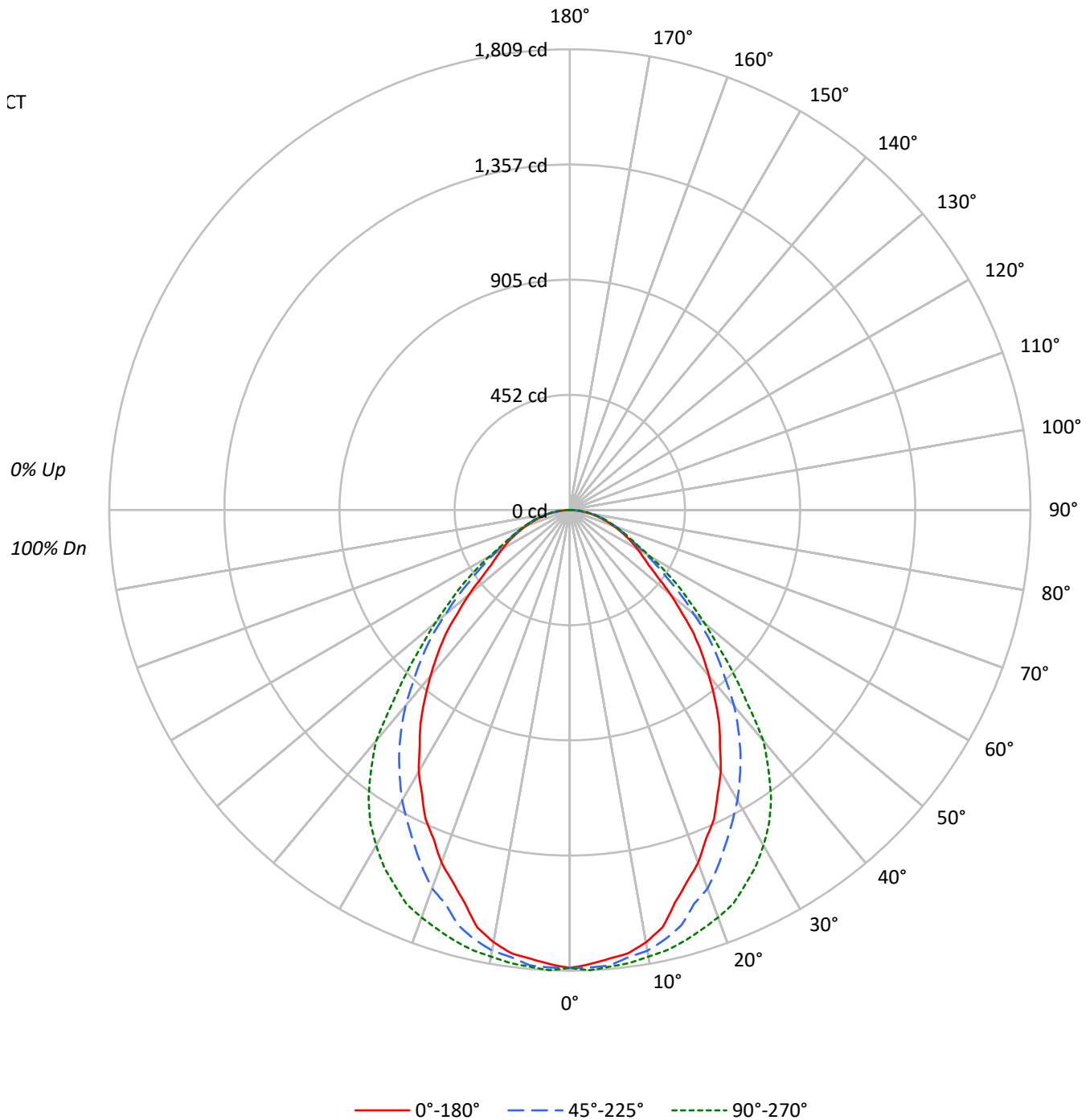
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3536.0 lumens
Efficiency: N/A
Efficacy: 128.1 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.25 / 1.19
Luminous Opening: Rectangular (W 0.38' x L: 1.98' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 6.5
Total Harmonic Distortion (THDi): 0.99
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	110	106	102	99	108	104	101	98	100	97	94	96	94	92	92	91	89	89	89	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	77	77	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	68	68	68	66
4	87	76	68	62	85	75	68	62	73	66	61	70	65	60	68	63	60	60	60	60	58
5	81	69	61	55	79	68	60	55	66	59	54	64	58	54	62	57	53	53	53	53	51
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	48	48	48	48	46
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	43	43	43	41
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	39	39	39	37
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	36	36	36	34
10	58	45	38	33	57	45	38	33	44	37	33	43	37	33	42	37	33	33	33	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25724	25724	25724
5°	25400	25772	25847
10°	25030	25520	25870
15°	23640	25020	25928
20°	22433	24076	25917
25°	21148	22851	25672
30°	19593	21747	25126
35°	17865	20413	24062
40°	15879	18749	22086
45°	13937	16644	18408
50°	11488	14179	15370
55°	9430	11712	12939
60°	8769	9731	10323
65°	8212	8649	8710
70°	7654	8089	8052
75°	7108	7683	7733
80°	6541	7110	7258
85°	5663	6237	8223

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 18408 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.6	4.8
10°-20°	473.0	13.4
20°-30°	676.1	19.1
30°-40°	737.6	20.9
40°-50°	621.3	17.6
50°-60°	413.8	11.7
60°-70°	255.3	7.2
70°-80°	144.7	4.1
80°-90°	44.7	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1318.6	37.3
0°-40°	2056.3	58.2
0°-60°	3091.3	87.4
0°-90°	3536.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3536.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1798	1798	1798	1798	1798	
5°	1769	1778	1795	1795	1800	168
15°	1596	1628	1689	1740	1751	450
25°	1340	1367	1448	1585	1626	612
35°	1023	1068	1169	1306	1378	636
45°	689	727	823	877	910	526
55°	378	405	470	502	519	350
65°	243	245	256	266	257	241
75°	129	130	139	144	140	137
85°	34	36	38	44	50	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1798.2	1798.2	1798.2	1798.2	1798.2
2.5°	1785.2	1786.1	1798.2	1805.1	1808.6
5°	1768.8	1778.3	1794.7	1794.7	1799.9
7.5°	1755.9	1757.6	1770.6	1789.6	1793.9
10°	1723.1	1731.7	1756.8	1778.3	1780.9
12.5°	1679.1	1684.2	1727.4	1768.8	1769.7
15°	1596.2	1628.1	1689.4	1739.5	1750.7
17.5°	1530.6	1563.4	1622.1	1711.9	1726.5
20°	1473.6	1491.7	1581.5	1679.1	1702.4
22.5°	1397.6	1431.3	1516.8	1640.2	1674.7
25°	1339.8	1367.4	1447.7	1585.0	1626.4
27.5°	1257.8	1299.2	1381.2	1526.3	1579.8
30°	1186.1	1231.0	1316.5	1464.1	1521.1
32.5°	1097.2	1144.7	1243.1	1389.0	1457.2
35°	1023.0	1067.9	1168.9	1306.1	1377.8
37.5°	934.9	985.9	1086.9	1215.5	1281.1
40°	850.3	893.5	1004.0	1114.5	1182.7
42.5°	769.2	808.9	907.3	999.7	1033.3
45°	688.9	726.9	822.7	877.1	909.9
47.5°	595.7	643.1	736.4	763.1	788.2
50°	516.2	555.9	637.1	661.3	690.6
52.5°	437.7	478.3	552.5	572.4	595.7
55°	378.1	404.9	469.6	501.6	518.8
57.5°	340.1	348.8	402.3	431.6	439.4
60°	306.5	311.6	340.1	366.9	360.8
62.5°	275.4	278.0	292.6	312.5	300.4
65°	242.6	245.2	255.5	265.9	257.3
67.5°	212.4	214.1	222.7	230.5	222.7
70°	183.0	183.9	193.4	198.6	192.5
72.5°	154.5	155.4	164.9	170.9	164.0
75°	128.6	130.4	139.0	144.2	139.9
77.5°	103.6	106.2	112.2	117.4	110.5
80°	79.4	81.1	86.3	92.4	88.1
82.5°	57.8	58.7	62.2	68.2	69.9
85°	34.5	36.3	38.0	44.0	50.1
87.5°	13.8	15.5	16.4	19.0	26.8
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	18.30	19.77	18.67	20.08	20.39	19.81	21.27	20.18	21.59	21.90
	3H	19.90	21.21	20.28	21.54	21.91	21.03	22.34	21.41	22.66	23.03
	4H	20.52	21.74	20.92	22.09	22.47	21.55	22.77	21.95	23.12	23.50
	6H	20.98	22.12	21.40	22.48	22.88	21.96	23.09	22.37	23.46	23.85
	8H	21.14	22.22	21.57	22.61	23.01	22.12	23.20	22.55	23.59	23.99
	12H	21.25	22.28	21.68	22.66	23.09	22.27	23.30	22.70	23.68	24.11
4H	2H	18.91	20.14	19.31	20.49	20.87	20.15	21.38	20.55	21.73	22.11
	3H	20.73	21.75	21.14	22.15	22.55	21.64	22.65	22.05	23.05	23.46
	4H	21.47	22.38	21.90	22.79	23.23	22.31	23.23	22.75	23.64	24.08
	6H	22.06	22.86	22.52	23.30	23.76	22.88	23.67	23.34	24.12	24.58
	8H	22.27	23.01	22.73	23.45	23.92	23.11	23.85	23.57	24.29	24.76
	12H	22.41	23.08	22.90	23.56	24.03	23.31	23.97	23.79	24.45	24.92
8H	4H	21.78	22.53	22.25	22.97	23.44	22.54	23.28	23.00	23.73	24.20
	6H	22.51	23.12	23.01	23.61	24.09	23.24	23.86	23.74	24.35	24.83
	8H	22.79	23.34	23.31	23.85	24.34	23.56	24.11	24.07	24.62	25.11
	12H	23.01	23.50	23.53	24.00	24.56	23.85	24.34	24.36	24.83	25.40
12H	4H	21.82	22.48	22.30	22.96	23.43	22.55	23.22	23.04	23.69	24.17
	6H	22.58	23.13	23.09	23.64	24.13	23.28	23.83	23.80	24.34	24.83
	8H	22.92	23.41	23.43	23.90	24.47	23.65	24.14	24.16	24.63	25.20